

REMARKS

Claims 11, 12, and 21-27 are currently pending. Claims 11, 12, and 21-24 have been allowed. Claims 25-27 stand rejected as being anticipated by U.S. Pat. No. 6,546,847 to Poe et al. (“Poe”).

Poe describes a current sense circuit “that provides a variable threshold to changes in response to voltage level of a power supply, which provides drive current to a load.” (4:55-57) More particularly, Poe teaches a “variable threshold circuit 110 [that] provides a variable threshold signal, to the voltage sense device 104, that varies as a function of the output voltage level of the power supply 114.” Accordingly, “should be voltage levels supplied by the power supply 114 decrease, the variable threshold circuit 110 provides a lower threshold signal to the voltage sense device 104. This allows the voltage sense device 104 to track variations in the power supply 114 such that short circuit conditions in the EC element 108 can be detected, when the output of the power supply 114 varies across a range of values.” (2:67 through 3:7) According to Poe, the threshold circuit allows for delivery of “a maximum current, demanded by a load, over a variable input voltage while at the same time still detecting when the load is shorted and responding in an appropriate fashion.” (4:13-17) That is, the current sense circuit allows a short circuit at a load to be detected even when an output of a power supply, that supplies power to a drive circuit, varies.

In contrast, claim 25 is directed to an apparatus for limiting power consumption by a load in which a current limiting circuit is operative to disconnect a load from a variable input voltage in response to variations in the input voltage such that a product of a current threshold and the input voltage does not exceed a power consumption limit value. The claimed apparatus is thus directed to circuitry that maintains power consumption to a load within prescribed limits by varying a current threshold value in response to input voltage changes. This is in stark contrast to the circuitry disclosed by Poe.

The circuitry disclosed by Poe adjusts a current threshold in response to voltage changes, not to maintain power consumption by a load within certain limits, but to detect a shorted load even when an input voltage has decreased. In fact, Poe teaches that a

lower current threshold signal is provided as the input voltage decreases. Thus, power, the product of the current threshold value and the input voltage would also decrease in Poe. As the input voltage increases, the current threshold signal increases, yielding a product value that is also increased.

Contrastingly, the claimed invention maintains the product of the input voltage and the current threshold relatively constant at a value substantially equal to a power consumption limit for the load. That is, since power is the product of voltage and current, if the value for voltage increases, the value for current must decrease if power is to remain constant, and vice-versa. In other words, in contrast to that described by Poe, in the claimed invention, changes in the current threshold are inversely related to variations in the input voltage. As such, Poe fails to teach or suggest that recited in claim 25.

Moreover, as set forth in claim 26, the present invention, in one further aspect, maintains power consumption by the load relatively constant by modulating the input voltage. In another further aspect, as set forth in claim 27, the present invention maintains power consumption by the load relatively constant by modulating the current threshold, thereby allowing a maximum current draw for a given input voltage. Poe fails to teach or suggest either of these aspects of the claimed invention.

Accordingly, in light of at least the foregoing amendment and remarks, it is believed that claims 11, 12, and 21-27 are in condition for allowance. Allowance is respectfully requested for these claims.

Very truly yours,

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